

NATIONAL RESEARCH COUNCIL
OFFICE OF SCIENTIFIC AND ENGINEERING PERSONNEL
2101 Constitution Avenue Washington, D C 20418

SURVEY OF DOCTORATE RECIPIENTS

(202) 334-3152

July 18, 1994

MEMORANDUM

TO: Keith Wilkinson
Linda Hardy

FROM: Susan Mitchell
Prudy Brown

SUBJECT: Over-Reporting of Postdoctoral Appointments

This memo provides some background information about the apparent over-reporting of postdoctoral appointments in the 1993 SDR. As mentioned earlier, about 2 percent of the respondents reported having a postdoctoral appointment in 1991; in 1993, that proportion increased to 4 percent of the mail respondents and 10 percent of the CATI respondents. While this increase may be "real," the magnitude suggests it is related to a change in the way the question was asked in 1993. This change moved the collection of information about postdocs from the old "employment status" question where postdocs were distinguished from other full-time employment (see 1991 questionnaire) to a separate question that was asked of everyone (see 1993 questionnaire).

We theorize that the over-reporting was due to a misinterpretation of the question in 1993. We think that respondents heard or read the words "postdoctoral appointment" and interpreted this to mean a job they acquired *after* earning their Ph.D., as opposed to before. This would explain why a number of respondents with 10 year's experience and earnings of \$60,000 or more said they were on postdoctoral appointments. Also, the CATI interviewers reported that foreign-born respondents had a difficult time understanding the concept of a postdoctoral appointment, even though the definition was read to them. This might explain the higher incidence in CATI because the follow-up sample was disproportionately foreign-born.

Clearly we need to take corrective action because this question is at the forefront of policy concerns. We think it is necessary to call back a portion of those who said they were postdocs in 1993 to verify that status. At the same time, we will learn some of the cognitive processes that influenced the original answering decision that might suggest a remedy for 1995.

Approximately 2,200 (S&E) respondents said they had a postdoctoral appointment in 1993. On the last page, we have grouped them by type and assigned a likelihood that each group actually had a postdoc. This was based on a review of related information such as type

of employer, salary, work activities, and years since doctorate. To assign likelihoods, we used a 1 to 5 scale with 1 meaning low likelihood and 5 meaning high likelihood that respondents in that group actually had a postdoc.

We propose to call back those in groups 2-4 to verify their status. This means approximately 940 phone calls (plus another 350 in the humanities which experienced a similar, though less dramatic, increase). With your help, we need to decide what the interviewers should say. For example, should they simply reread the question and definition of postdoctoral appointment and ask the respondents to verify or change their answer, or should they use a different definition? If different, what are the implications for forward and backward comparability?

Those whom we do not call back because the certainty is high they are not postdocs will have their answer changed to "no." We will preserve the original response in a separate field, however, to later analyze those who changed their status.

To sum up, we think there are four questions to consider before resolving this issue:

- 1) What is the definition of postdoctoral appointment?
- 2) How should we verify postdoctoral status in 1993, that is, what question(s) should we ask?
- 3) What takes priority in specifying a solution? Comparability with 1991 and earlier years, or establishing a solid baseline for the decade of the 1990s?
- 4) How should we ask the question in 1995?

In our minds at least, these are difficult questions. Please call when you have had a chance to review this material. If you'd like to review more examples, just let us know.

cc: Alan Fechter
Geri Mooney

**Table 1: Respondents who Reported Postdoctoral Appointments in 1993
by Group, Likelihood, and Need for Callback**

Group	N%	Likelihood 1=low 5=high	Callback?
1. Respondents who used a form of the word “postdoctoral appointment” in response to write-in occupation	835 39%	5	No
2. Medical students and interns. (These have been counted as postdocs in the past.)	107 5%	5	No
3a. Research scientists, research associates, research assistants, and others who write-in that they are doing research in a specific field in response to occupation. This group has the same characteristics as group 1 (i.e., engaged in research, salaries in the \$20-35K range, no faculty rank). Their doctoral degree was granted within the past 5 years.	556 26%	3	Yes
3b. Same as 3a except doctorate was granted more than 5 years ago.	64 3%	2	Yes
4a. Academically employed individuals <i>with a faculty rank who list research</i> as either their primary or secondary activity. Doctoral degree granted within the past 5 years.	128 6%	2	Yes
4b. Same as 4a except doctorate was granted more than 5 years ago.	64 3%	2	Yes
5. Academically employed individuals <i>with a faculty rank who do not list research</i> as a primary or secondary work activity.	171 8%	1	No
6. Nonacademically employed individuals who do research (salaries and experience vary from high to low).	128 6%	2	Yes
7. Nonacademically employed individuals whose characteristics do not resemble postdocs: a. salaries in excess of \$50,000 (usually) b. may be self-employed c. work activities do not include research	107 5%	1	No

Note: Some changes to the format of this memorandum were made during the conversion to electronic format.